

a plurality of lines (10, 11, 12, 13, Ti) for extraction or injection of secondary fluids.

a bypass circuit communicating a distribution plate with at least one bypass line (Li,j), wherein

the device comprises means (14, Voi,j, 20) for communicating said at least one single distribution, mixing and/or extraction chamber (Ci) with at least one bypass line (Li,j),

at least one end of a bypass line communicates with a zone (Ri, R'i) of an adsorbent bed, said zone being distinct from said distribution chamber (Ci), and another end is connected to said chamber (Ci).

4. (Amended) A device as claimed in claim 3, characterized in that said rotary valve (20) is in communication with a plurality of groups of lines, group G₁, group G₂ and group G₃, said valve comprising:

- a stator (110) provided with several means (E, F, R, S) intended for circulation of the fluid(s) of group G₁, means (115, 116) allowing passage of at least two fluids F₁, F₂ belonging to group G₃,

- a rotor (117) equipped with means (119) for passage of the fluids of group G₃ and means (120) for communication of either the fluids of group G₁ with group G₃, or of group G₃ with Group G₃,

- means (115) and (116) comprising a substantially equal number of passages, said valve comprises means (122) for communicating at least two fluids of group G₃, and flow section S₁ of ports intended for fluid F₁ is different from flow section S₂ of the ports intended for fluid F₂.

5. (Amended) A device as claimed in claim 4, characterized in that the means provided on the valve for passage of fluid F₁ and of fluid F₂ have flow surface areas S₁ and S₂ respectively and in that the S₁/S₂ ratio ranges between 2 and 10.

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6. (Twice Amended) A device as claimed in claim 4, characterized in that said means allowing communication of the fluids of group G₃ consistS of slots (122) provided in a layer of material or liner deposited on the lower face of the rotor.

8. (Twice Amended) A device as claimed in claim 4, wherein said circulation means (E, R, S, F) comprises a plurality of grooves arranged on the resting face or upper face of the stator and in that slots (122) are provided in the liner.

9. (Twice Amended) A device as claimed in claim 4, characterized in that circulation means (E, R, S, F) are 4 in number.

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10. (Amended) A device as claimed in claim 1, characterized in that said enclosure comprises a non-perforated central tube over at least part of the length thereof, and in that the panels forming a plate comprise a tangential cutout, zone (R_i, R'_i) comprises at least one diverted fluid distribution means (53, 54), and the end of bypass line (L_{i,j}) opens into said distribution means (53, 54).

11. (Amended) A device as claimed in claim 10, characterized in that the fluid distribution circuit is arranged around said enclosure and comprises a main line (61) divided into a plurality of secondary lines (62, 63, 62a, 62b, ...) so that the fluid(s) reach the panels forming a plate substantially at the same time.

12. (Amended) A device as claimed in claim 1, characterized in that the plates form a parallel cutout and in that the fluid distribution device comprises a main line, and the bypass line is connected to an adsorbent bed by means of a device comprising transfer ports, said device being mounted on the fluid distribution spider.

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14. (Amended) A device as claimed in claim 1, characterized in that a plate comprises a plurality of panels forming a radial cutout, the enclosure comprises a central tube and

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a secondary fluid distribution ring in communication with a distribution plate, diverted fluid distribution means, said means being arranged below the distribution ring and said means being connected to the end of the bypass line, said bypass line being connected to a zone of an adsorbent bed.

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18. (Amended) In a process comprising injection of a diverted fluid in a simulated moving bed separation process, comprising at least the following stages:
circulating a main fluid through a plurality of adsorbent beds,
injecting and extracting secondary fluids comprising feed, desorbent, extract and/or raffinate according to a sequentially in order to achieve separation of the constituents of the feed,
injecting a diverted fluid,
the improvement wherein at least part of the main fluid is circulated outside the enclosure allowing separation by means of a bypass line comprising at least two ends, one end being connected to a zone of an adsorbent bed distinct from a chamber (Ci) so as to inject and/or to extract part of the main fluid in the zone.

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21. (Twice Amended) A process as claimed in claim 18, for separation of paraxylene from aromatic hydrocarbon-containing feeds with eight carbon atoms.

Please add the following new claims:

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--22. A process according to claim 5, wherein the S_1/S_2 ratio is about 4.

23. A device according to claim 1, wherein all panels comprise a single distribution, mixing and/or extraction chamber (Ci). --
